

# PROJECT PLANNING

## PHASE

### SPRINT 3

Date	12 October 2022
Team ID	PNT2022TMID48154
Project Name	IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

USN-11- Launch the Cloudant DB and Create database to store the location data.

The screenshot shows the IBM Cloud Catalog interface. On the left, there's a sidebar with options like 'Multitenant' and 'Available regions' (set to London). In the center, a modal window is open with the title 'Service was not created'. The message inside the modal states: 'You can only have one instance of a Lite plan per service. To create a new instance, either delete your existing Lite plan instance or select a paid plan.' At the bottom right of the modal is a blue 'Create' button. To the right of the modal, there's a summary section for 'Cloudant Lite' showing it's free, with 20 reads/sec and 10 writes/sec included. The overall interface is dark-themed.

USN-12-Create the database in the cloudant

The screenshot shows the IBM Cloudant dashboard. On the left, a sidebar menu is open with items: Monitoring, Databases (which is selected and highlighted in blue), Replication, Active Tasks, Account, Support, and Documentation. The main content area is titled 'Databases' and contains a table with the following columns: Name, Size, # of Docs, Partitioned, and Actions. There are no databases listed in the table. At the top right of the table, there's a 'Create Database' button. The bottom of the screen shows a status bar with the text 'Showing 1-0 of 0 databases. Databases per page: 20' and a date/time stamp '15-11-2022 15:41'. The overall interface is light-themed.

The screenshot shows the Cloudant Dashboard interface. On the left, there's a sidebar with various icons for database management. The main area displays a table titled 'Your Databases' with columns: Name, Size, # of Docs, and Partitioned. A modal window titled 'Create Database' is open on the right, prompting for a 'Database name' (set to 'IOTProject') and 'Partitioning' (set to 'Non-partitioned - recommended for most workloads'). Below the modal is a question 'Which should I choose?'. At the bottom right of the modal are 'Cancel' and 'Create' buttons.

USN-13-The database had been successfully created

The screenshot shows the Cloudant Dashboard for the newly created database 'pnt2022tmid48154'. The left sidebar includes options like 'All Documents', 'Query', 'Permissions', 'Changes', and 'Design Documents'. The main content area features a large cloud icon and the message 'Database created successfully'. Below it, it says 'No Documents Found'. At the bottom, it shows 'Showing 0 documents. Documents per page: 20'. The status bar at the bottom right indicates the date and time as 16-11-2022 12:21.

## Create the new document in the database

The screenshot shows the Cloudant Dashboard interface for creating a new document. The URL in the address bar is [cd925334-dee8-49ae-8554-74efee774f75-bluemix.cloudant.com/dashboard.html#/database/pnt2022tmid48154/\\_new](https://cd925334-dee8-49ae-8554-74efee774f75-bluemix.cloudant.com/dashboard.html#/database/pnt2022tmid48154/_new). The main area displays a JSON editor with the following code:

```
1 {
2   "_id": "bdb038225fca48b29b2cf1baf4271f8",
3   "new": "abcd"
4 }
```

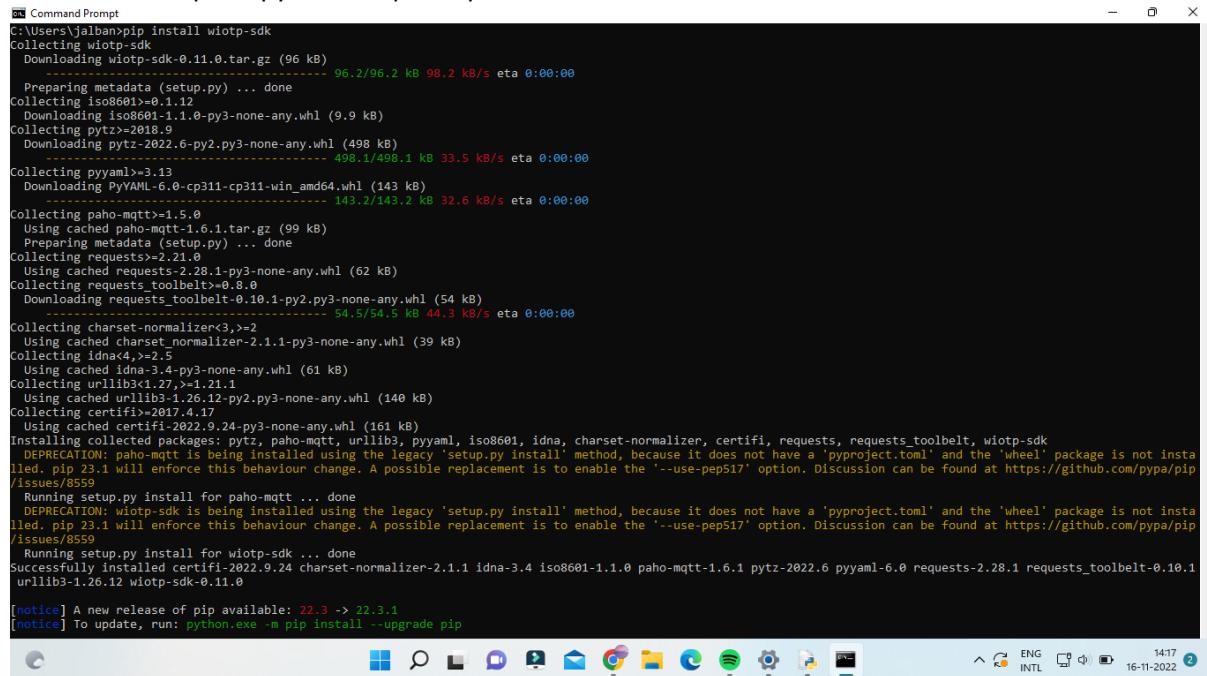
The interface includes a sidebar with icons for Home, Create Document, All Documents, Query, Permissions, Changes, Design Documents, and Log Out. At the top right, there are buttons for JSON, XML, and a bell icon. The bottom status bar shows the date and time as 16-11-2022 12:27.

The screenshot shows the Cloudant Dashboard interface for viewing all documents. The URL in the address bar is [cd925334-dee8-49ae-8554-74efee774f75-bluemix.cloudant.com/dashboard.html#/database/pnt2022tmid48154/\\_all\\_docs](https://cd925334-dee8-49ae-8554-74efee774f75-bluemix.cloudant.com/dashboard.html#/database/pnt2022tmid48154/_all_docs). The main area displays a table with the following data:

id	key	value
bdb038225fca48b29b2cf1b...	bdb038225fca48b29b2cf1b...	{ "rev": "1-4dbd80ab6e655d7..."}

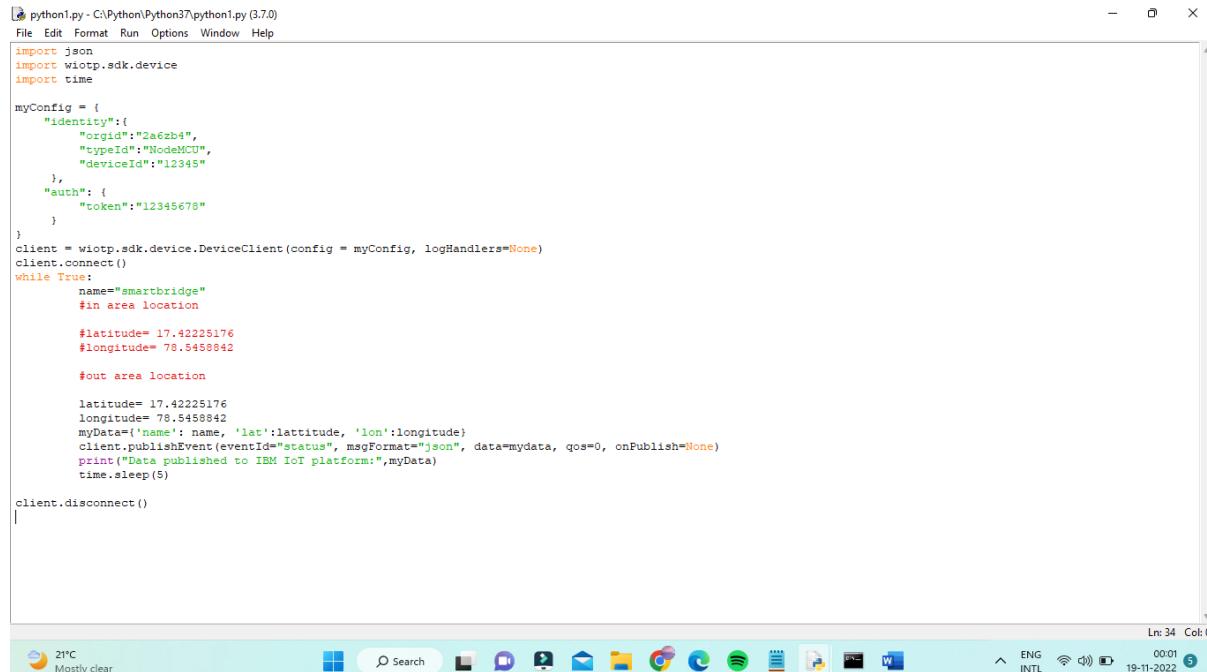
The interface includes a sidebar with icons for Home, All Documents, Query, Permissions, Changes, Design Documents, and Log Out. At the top right, there are buttons for Document ID, Options, JSON, XML, and a bell icon. The bottom status bar shows the date and time as 16-11-2022 12:28.

### USN-14-Develop the python scripts to publish details to IBM IoT Platform



```
C:\Users\jbalan>pip install wiotp-sdk
Collecting wiotp-sdk
  Downloading wiotp-sdk-0.11.0.tar.gz (96 kB)
    Preparing metadata (setup.py) ... done
  Collecting iso8601>=0.1.2
    Downloading iso8601-1.1.0-py3-none-any.whl (9.9 kB)
  Collecting pytz>=2018.9
    Downloading pytz-2022.6-py2.py3-none-any.whl (498 kB)
    Preparing pyyaml>=3.13
    Downloading PyYAML-6.0-cp311-cp311-win_amd64.whl (143 kB)
  Collecting paho-mqtt>=1.5.0
    Using cached paho-mqtt-1.6.1.tar.gz (99 kB)
    Preparing metadata (setup.py) ... done
  Collecting requests>=2.21.0
    Using cached requests-2.28.1-py3-none-any.whl (62 kB)
  Collecting requests_toolbelt>0.8.0
    Downloading requests_toolbelt-0.10.1-py2.py3-none-any.whl (54 kB)
    Preparing metadata (setup.py) ... done
  Collecting charset-normalizer<3,>=2
    Using cached charset_normalizer-2.1.1-py3-none-any.whl (39 kB)
  Collecting idna>4,>=2.5
    Using cached idna-3.4-py3-none-any.whl (61 kB)
  Collecting urllib3<1.27,>=1.21.1
    Using cached urllib3-1.26.12-py2.py3-none-any.whl (140 kB)
  Collecting certifi>=2017.4.17
    Using cached certifi-2022.9.24-py3-none-any.whl (161 kB)
Installing collected packages: pytz, paho-mqtt, urllib3, pyyaml, iso8601, idna, charset-normalizer, certifi, requests, requests_toolbelt, wiotp-sdk
  DEPRECATION: paho-mqtt is being installed using the legacy 'setup.py install' method, because it does not have a 'pyproject.toml' and the 'wheel' package is not installed. pip 23.1 will enforce this behaviour change. A possible replacement is to enable the '--use-pep517' option. Discussion can be found at https://github.com/pypa/pip/issues/8559
    Running setup.py install for paho-mqtt ... done
  DEPRECATION: wiotp-sdk is being installed using the legacy 'setup.py install' method, because it does not have a 'pyproject.toml' and the 'wheel' package is not installed. pip 23.1 will enforce this behaviour change. A possible replacement is to enable the '--use-pep517' option. Discussion can be found at https://github.com/pypa/pip/issues/8559
    Running setup.py install for wiotp-sdk ... done
Successfully installed certifi-2022.9.24 charset-normalizer-2.1.1 idna-3.4 iso8601-1.1.0 paho-mqtt-1.6.1 pytz-2022.6 pyyaml-6.0 requests-2.28.1 requests_toolbelt-0.10.1
urllib3-1.26.12 wiotp-sdk-0.11.0
[notice] A new release of pip available: 22.3 -> 22.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

### USN-15- Develop the python code for publishing the location (latitude & longitude) to IBM IoT Platform



```
python1.py - C:\Python\Python37\python1.py (3.7.0)
File Edit Format Run Options Window Help
import json
import wiotp.sdk.device
import time

myConfig = {
    "identity": {
        "orgId": "2a6zb4",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "12345678"
    }
}
client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers=None)
client.connect()
while True:
    name="smartbridge"
    #in area location
    latitude= 17.42225176
    longitude= 78.5458842
    myData={"name": name, 'lat':latitude, 'lon':longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platform:",myData)
    time.sleep(5)

client.disconnect()
```

#python code:

```
import json
import wiotp.sdk.device
import time
```

```
myConfig = {
    "identity": {
        "orgId": "2a6zb4",
```

```

    "typeId":"NodeMCU",
    "deviceId":"12345"
},
"auth": {
    "token":"12345678"
}
}
client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers=None)
client.connect()
while True:
    name="smartbridge"
    #in area location

    #latitude= 17.42225176
    #longitude= 78.5458842

    #out area location

    latitude= 17.42225176
    longitude= 78.5458842
    myData={'name': name, 'lat':latitude, 'lon':longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData,
qos=0, onPublish=None)
    print("Data published to IBM IoT platform:",myData)
    time.sleep(5)

client.disconnect()

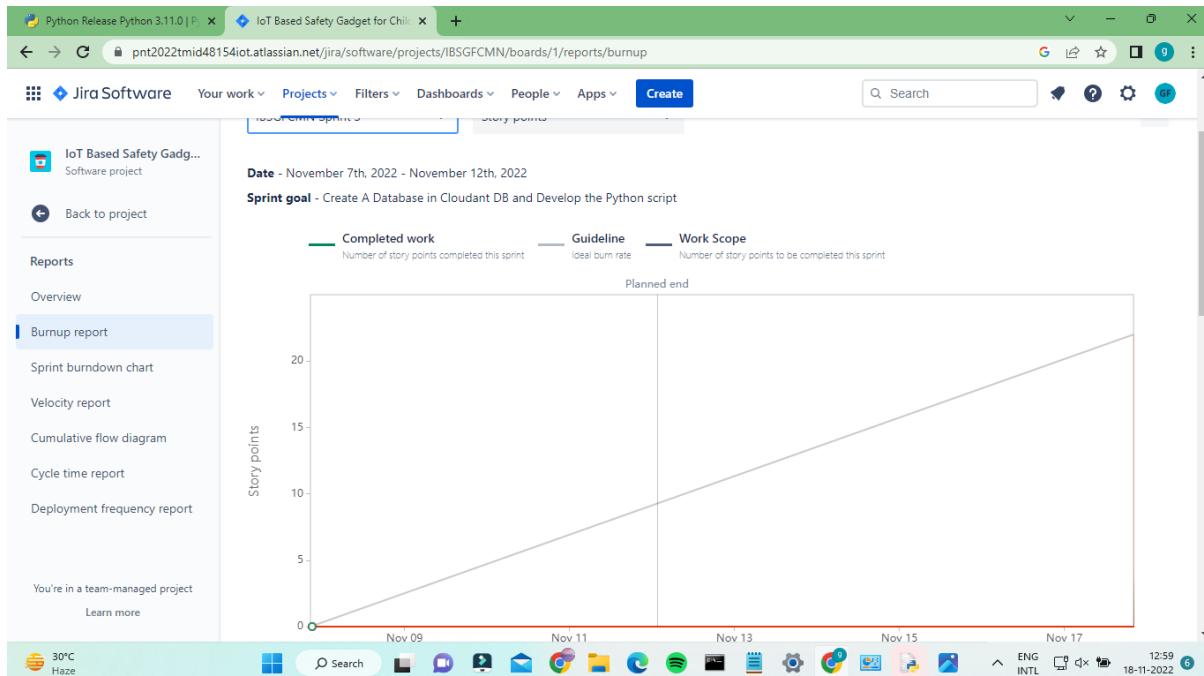
#IBM IOT connected:
myConfig = {
    "identity":{
        "orgid":"2a6zb4",
        "typeId":"NodeMCU",
        "deviceId":"12345"
    },
    "auth": {
        "token":"12345678"
    }
}

```

# ROADMAP:

Sprints	NOV
	7 8 9 10 11 12
IBSGFCMN Sprint 3	
IBSGFCMN-21 Create and Configure IBM Cloud Se...	
IBSGFCMN-22 Create and access Node-Red	
IBSGFCMN-23 Create A Database in Cloudant DB...	
IBSGFCMN-11 Launch the... <span style="background-color: #2e3436; color: white; padding: 2px 5px;">DONE</span> GULNSA FAT...	
IBSGFCMN-12 Install the py... <span style="background-color: #2e3436; color: white; padding: 2px 5px;">DONE</span> ACIKAMUT...	
IBSGFCMN-13 Develop the... <span style="background-color: #2e3436; color: white; padding: 2px 5px;">DONE</span> ARUNNAV...	
IBSGFCMN-14 Integrate th... <span style="background-color: #2e3436; color: white; padding: 2px 5px;">DONE</span> GMUTHULA...	
IBSGFCMN-15 Develop th... <span style="background-color: #2e3436; color: white; padding: 2px 5px;">DONE</span> GULNSA FAT...	
IBSGFCMN-24 Create the Web application using No...	

# BURNUP REPORT:



## **SPRINT BURNDOWN CHART:**

